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# THE FARM INDEX

March 1970

**Weather: Unsettled**

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# weather: unsettled

*Nothing is more important to the farmer's business than weather, and U.S. weather services—100 years old this year—pursue their goal of eliminating the guesswork.*

One long blast: fair weather.  
Two long blasts: rain or snow.  
Three long blasts: local rains.  
One short blast: lower temperature.

Two short blasts: higher temperatures.

Three short blasts: cold wave.

This steam-whistle system of relaying weather forecasts to farmers across our Nation was never actually set up. But it seemed like a good idea in the late 1800's when it was proposed by Jeremiah Rusk, Secretary of Agriculture.

His Department had just taken over responsibility for our national weather services. And Rusk, like most men with a rural background, realized how helpful it would be to farmers if they could get accurate and timely weather forecasts. He thought his whistling network might do it.

Now, in this year of 1970, the national weather services of the United States are celebrating their 100th anniversary.

They enter their second century armed with a knowledge of the atmosphere. They possess an assortment of tools for observing and predicting weather. And they offer a variety of services which would amaze the most visionary weatherman of a century ago.

Thousands of weather obser-

vations are made every day by government agencies, volunteer citizen observers, ships, planes, automatic weather stations, and earth-orbiting satellites in an increasingly successful effort to answer the basic question, "What's the weather going to be?"

There's still no sure answer. It's far from settled. Yet weather is perhaps our most valuable resource.

It is the farmer's major "production input," that often hurts him more than it helps. If the weather is too dry or too wet, too hot or too cold, crops fail. The farmer suffers and others with him.

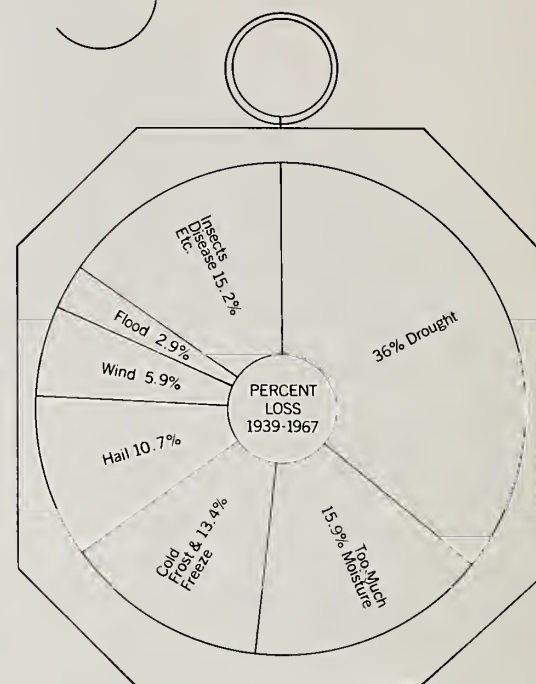
We now know that permanent changes in climate could ruin our whole economic structure and make our continent, as well as the continents of our world neighbors, practically uninhabitable.

"Permanent" changes, however, have been scarcely perceptible until recent years, despite day-to-day and year-to-year fluctuations in weather.

Even so, these fluctuations profoundly influence people's personal and professional lives.

Fortunately, supplies of weather—unlike some other natural resources—appear to be inexhaustible. The catch is: We are not yet able to control our weather supplies the way we can other resources and agricultural inputs.

True, we can store up limited supplies of water and create artificial heat and cold in relatively small quantities. But we cannot



Distribution of the Federal Crop Insurance Corporation's indemnity payments from 1939 through 1967, by cause of loss, indicate the relative importance of major weather elements to farmers.

yet stockpile weather as such, and release it when and where it is needed. Nor can we control surpluses, upgrade the quality, or augment the available quantity of desirable weather at will.

And so, billions of dollars of profits and losses—in agriculture, industry, and commerce—still depend each year on the whims of weather.

What have we been doing about these strategic weather supplies?

IN THE BEGINNING. Our first continuous weather records pre-date by more than 200 years the establishment of the first official U.S. weather services in 1870.

Only 24 years after the landing at Plymouth Rock, the Reverend John Campanius Holm (chaplain for Swedes Fort, near today's



Wilmington, Del.) kept daily track of weather in "diaries" of 1664-65. And in 1738, John Lining, of Charleston, S.C., began keeping more scientific records.

Farmers, however, relied on their own abilities as local weather prophets until about 1800—when almanacs first appeared. The *Hagerstown Almanac* was first published in 1797 in German; in 1822 it was in German and English; not until 1918 was it in English only. Newspapers were not generally available to farmers until the advent of R.F.D.—rural free delivery—in 1897.

After 1830, theoretical meteorology was given more attention—mainly by military observers and by the Smithsonian Institution.

Then, on Feb. 9, 1870, President Grant signed the bill that established a national weather service as part of the Army's Signal Service. It was called "the Division of Telegrams and Reports for the Benefit of Commerce." The first appropriation act, in 1872, added "agriculture" to the beneficiaries.

By 1886, 290 sites were equipped with cold-wave warning flags and forecasts of cold waves were passed along by telegraph, telephone, and railroad.

Yet it was obvious that America's farmers needed more. And on Oct. 1, 1890, President Harrison transferred all weather services to the USDA—where they were to remain for the next 50 years as "the Weather Bureau."

THE TURN OF THE CENTURY. As Congress intended, the new Weather Bureau in USDA concentrated on helping the farmer. Climatological services were tailored to agriculture and scientific work advanced apace.

Here are some half-century (1890-1940) highlights of weather progress:

1890—\$2,000 appropriated to Forestry Division for experiments in "production of rain;" \$17,000 more added by 1892.

1894—Division of Agricultural Soils established in Weather Bureau.

1905—first wireless weather report received from ship at sea.

1907—U.S.-Russian exchange of daily weather reports begun.

1910—weekly outlooks issued to aid agricultural planning.

1913—first fire-weather forecast issued.

1921—first systematic radio-telephonic broadcast of weather forecast, by University of Wisconsin.

1934—airmass analysis section set up in Weather Bureau.

1935—improved 24-hour hurricane warning service launched.

1939—automatic telephone weather service in New York City initiated by Weather Bureau.

1940—first official 5-day forecast issued. Weather services transferred to Department of Commerce.

THE "NOW" LOOK. Technological advances spurred by World War II put two powerful new tools

into the weather services' kit.

The first was radar—capable of scanning thousands of square miles and providing a 3-D view of the dimensions, intensity, and movement of storms, as well as changes in their character.

The second was the high-flying rocket, which has made it possible to carry earth-orbiting weather satellites and satellite-mounted sensors into space. Weather sciences have thus been able to move up into the air where their troubles or triumphs originate.

A third tool, too, has been added: the high-speed computer, which can absorb complex formulas describing atmospheric processes and process them into meaningful weather predictions.

With these and other "robot aides," our weather services are now exploring areas unheard of 100 years ago when nuclear fallout, spacewalk, cloud-seeding and hail-suppression were meaningless terms to most people.

USDA'S ROLE. Today's intelligent farmer rarely makes a move without the help of some science—often weather-related.

And many services in the Department of Agriculture share an interest in providing the farmers they represent with the best weather services available.

*The Economic Research Service* has contributed a number of weather-related studies.

Its Farm Production Economics Division (FPED), for example, is involved with aggregative anal-



ysis of yield and production changes. Since weather-caused variations in crop yields and production are often greater than variations due to changes in inputs and technology, FPED has developed linear programming methods to analyze and project these variations.

Two pertinent pilot studies, conducted jointly with the Iowa and the Oregon Experiment Stations, have been completed.

FPED is also trying to pin down probabilities of days suitable for fieldwork in specific areas. This would help farmers who tend to overinvest in farm machinery.

The Natural Resource Economics Division (NRED), as a member of the joint USDA/State Agricultural Experiment Stations' Task Force on Weather Modification, has been estimating costs and benefits of hail suppression for the Interdepartmental Committee on Atmospheric Sciences.

Another cooperative study, recently published, provides statistics on precipitation probabilities by climatic division in 23 Eastern States. And in an NRED extramural study at Kansas State University a model was developed for estimating effects of rainfall variations on wheat.

Benefits and costs of special agricultural weather information programs are now being analyzed, in cooperation with the Purdue Experiment Station and the Data Service of the Environmental Science Services Administration (ESSA), Department of Commerce.

Also on NRED's agenda are studies to identify areas which might benefit the most from hail suppression, and to estimate the value of water that weather modification may add to reservoirs.

Meanwhile, weather continues to be an imponderable. But with ever-improving facilities to predict and control it, today's unsettled weather conditions may perhaps clear up—or be cleared up—tomorrow. (1)

## Farm Mortgage Debt Rises Again But Rate of Ascent Slows Down

Last year saw the Nation's farm mortgage debt rise again—just as it has every year in the past two decades. But the 1969 climb was not as steep as in many recent years.

At an estimated \$28.7 billion on January 1, 1970, the debt was only 5.7 percent more than on the same date in 1969. In 1968, the debt rose 6.5 percent; the year before, by 9.4 percent.

The slower rate of increase in 1969 was largely due to the decreased activity of life insurance companies in the farm mortgage field. For these companies, rates of return were generally higher on investments in the nonfarm economy.

During 1968 (the latest year for which a breakdown of complete data on farm debt is available) farm mortgage lending increased fastest in the Delta States—10.8 percent. The rise was least in the Northeast, 4.4 percent.

All the major lender groups, except the Farmers Home Admin-

istration, increased their holdings of farm mortgage loans that year. However, the rate of increase for each lender was less than in 1967.

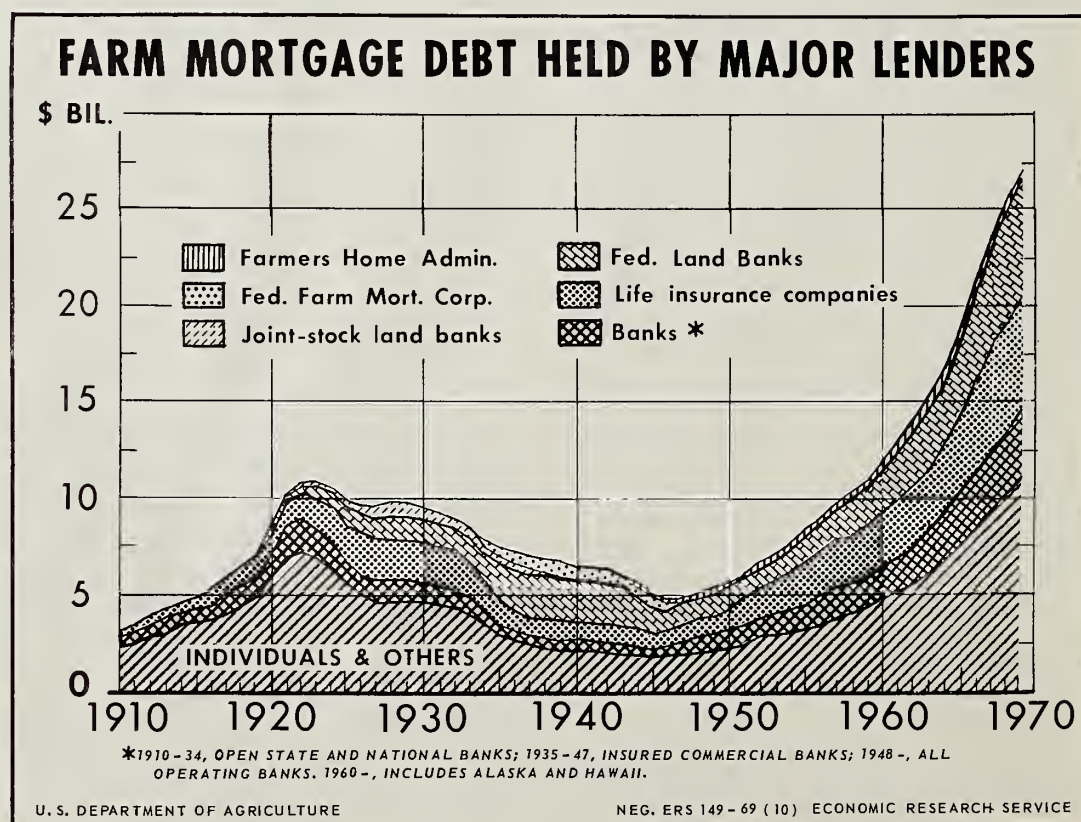
Holdings in 1968, compared with the previous year, were up 9.3 percent for Federal land banks, 4.0 percent for life insurance companies and 8.9 percent for all operating banks.

Banks, in general, increased their farm mortgage loan holdings significantly in regions where life insurance company holdings decreased or changed little.

As in other recent years, the volume of direct farm mortgage loans held by the Farmers Home Administration in 1968 dropped significantly.

Total repayments during 1968 on loans held by the Federal land banks, 19 life insurance companies, and FHA represented 7.6 percent of the amount outstanding at the beginning of the year, compared with 1967 repayments of 7.7 percent.

The loans held by these three groups represent three-fourths of total loans held by institutional lenders. (2)





## The Rural Medicine Gap



*The hospital beds are there in most cases. But isolation, low incomes, and lack of knowledge of the facilities put many rural people at a health disadvantage.*

There are actually more hospitals per resident in many rural areas than there are in some big cities.

But that doesn't necessarily mean rural residents get the quality and quantity of medical care they need.

Isolation, low incomes, distance from health facilities, and lack of knowledge about them put rural people at a disadvantage.

Comprehensive planning and care in multicounty health dis-

tricts—according to studies by the Economic Research Service and others involved in rural development—could help remedy this.

It could:

- Improve and expand medical services at central locations;
- Step up emergency care; and,
- Get rural people as quickly as possible to the health center that can best provide the type of care they need.

Hospitals of 25 or more beds are available within a 25-mile distance of all but 2 percent of the U.S. population. But that 2 percent includes about 4 million rural people. And for these 4 million, distance from medical facilities is

generally a serious problem—especially when people in a rural area are poor.

Even rural residents within 25 miles of a hospital sometimes have transportation difficulties. It often costs more to get the rural patient to the hospital—and transport the family and friends to visit him—than it does for his urban counterpart.

*Emergency services.* Distance of rural people from health facilities is aggravated by lack of emergency services. Many hospitals and communities do not adequately handle emergencies.

Ambulances and other mobile services are frequently lacking or limited. As a result, treatment of



emergencies may be delayed—sometimes fatally.

And even when emergency transportation is available, there's often little leeway in local budgets for hiring ambulance crews adequately trained to give on-the-spot first aid.

The fact that fatality rates per accident are much higher in rural areas than in urban areas can be traced at least partly to deficiencies in emergency services.

And the rate of fatal accidents per worker is higher for farmers than for any other occupation group except miners and construction workers.

*Doctors.* For one reason or another, many physicians seem to shy away from locating in rural areas. Principally, they are attracted to urban centers for wider professional opportunities and better income prospects. And many of those already practicing in rural areas are either elderly or considering leaving rural areas for the city.

For example, the rate of decline in the number of practicing physicians was about six times the rate of decline in population numbers in isolated, low income rural counties between 1950 and 1959. And since relatively few specialists move into rural areas, the rural physician may undertake more complicated, specialized treatment than the urban general practitioner who can quickly call a specialist.

*Hospitals.* In relation to population, there are actually more hospitals in sparsely populated, low income counties than in more populated and affluent counties.

But these hospitals tend to be smaller and frequently provide no outpatient or extended care facilities. Also, their staffs and equipment may be limited because of budgetary considerations. Both of these factors may make it difficult for rural hospitals to meet quality standards for accreditation.

Some researchers and rural de-

velopment planners do not think that rural health problems will be answered by building more of these smaller rural health centers.

They think it would be better to concentrate on less expensive and more efficient means of getting patients to the bigger urban medical centers which have larger, specialized staffs and a variety of equipment and services.

Steps in this direction would improve routine medical treatment and particularly benefit rural people with serious and complicated disorders.

Planning and organizing health services on a regional basis, as is currently being done, will go a long way toward assuring all U.S. citizens of adequate medical care when and where they need it.

Whether local or in nearby urban centers, however, health services may mean little to rural people unless the people know more about them and are familiar with their costs and availability.

Thus it is essential that regional health planners also provide informational services that would tell rural people what facilities are available.

In this way regional health planning not only leads to improved availability of services but also to increased use of those services by the rural poor. (3)

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### **Good Help Nowadays Is Hard To Find, Especially in Northeast**

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Economists have a word for the farm labor situation in the 12 Northeastern States: tight.

And what's worse—for the farm operator, at least—there are no signposts indicating that there will be an adequate force of farmworkers around the next turn.

This is in stark contrast to the "good old days" within many a Northeastern farmer's memory when a plentiful supply of farmworkers was almost as sure as the

seasons themselves.

Since 1960, there's been a drop of 37 percent in the number of persons unemployed and looking for work in the Northeast. Nationwide the decline was only 27 percent.

Thus the Northeastern farmer has had to compete actively with nonfarm employers for workers. He has done this by raising farm wages, by using more family labor and machines, and by scaling his farm to a size that he and his family can handle without hired help.

(The 12 Northeastern States consist of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, and West Virginia.)

During the first 7 months of 1969, farmers in these 12 States hired 7,000 fewer workers than they did in the same period of 1968.

Pennsylvania hirings showed a drop of around 2,000 from the previous year; 6 of the States used about 1,000 fewer workers and the remainder used about the same number as they did the first 7 months of 1968.

Those workers who were hired by Northeast farm operators, however, received significantly higher wages in 1969 over 1968.

In the single year beginning July 1, 1968, and ending July 1, 1969, farm wage rate increases ranged from 2 percent in Delaware to 12 percent in New Jersey.

Among things contributing to this rise in wage rates are:

*The minimum wage law.* Under the Fair Labor Standards Act, the minimum wage for covered workers was increased to \$1.30 an hour on February 1, 1969. This was the last step of two increments that brought coverage to farmworkers.

Of course, many farmworkers still not covered are being paid considerably below the minimum wage in other areas of the coun-



try. But the average U.S. farm wage rate for July 1969 almost reached the \$1.60 minimum non-farm average.

*Social security.* Certain hired farmworkers are now covered by social security, and the tax withholding rate for them moved up from 4.2 percent in 1966 to 4.8 percent on January 1, 1969.

*Fringe benefits.* Worker insistence on better housing, safer equipment, unemployment compensation, paid vacations, and possible unionization and collective bargaining are all helping to push up hired labor costs to the farm operator.

*Nonfarm jobs.* Competition from higher paying nonfarm jobs also has helped raise farmworker wage rates especially among those skilled at operating complicated farm machinery. (4)

### Industry Sees Farmers as New Labor Source, Goes Out to Them

Instead of the farmer migrating to the big city to make more money, he can now often commute to nearby factories built in the 1960's.

The improved Interstate Highway System, new processing and distributing techniques, and the increasing attractiveness of rural community life have combined to make it feasible for industry to move out into the countryside.

And these shifts of plant sites or expansion into rural areas accounted for about half the manufacturing employment gains in non-metropolitan areas and about 20 percent of such gains throughout the country.

Biggest gains regionally were in the South and within the western extensions of the Great Lakes industrial belt into Minnesota, Iowa, and Missouri.

When new industry moved into a low income area where nonfarm jobs were few and far between, both the farmer and his rural

nonfarm neighbor benefited.

The introduction of one or more plants often doubled or tripled a rural community's total income and caused the per person and per household share to go up accordingly.

These new or expanded manufacturing facilities opened up about 50 percent of all the new jobs in the 2,087 rural and semi-rural counties of the United States in the 1960's.

And the construction work needed to build the new factories or expand the old ones furnished many additional jobs.

Most of the recently added facilities produced consumer goods ranging from foods and wearing apparel to radios, TVs, other appliances, boats, and house trailers.

But a substantial number produced fertilizers, machinery, chemicals, electronic equipment, and comparable items for the agricultural and industrial market.

Job training and remedial education programs helped some of the underemployed, the unskilled, and the poorly schooled in rural areas to get jobs in these new or expanded rural industries.

Yet, as in the cities, the unschooled and unskilled remain at a severe disadvantage in the modern job market. They are lucky if they are able to gain more than a tenuous foothold on the local economic ladder.

In some areas, in fact, the apparent reduction of households with incomes below the poverty level may well be mostly due to members of low income families either dying off or leaving the area.

In other areas, where there was no new industrial growth and where the off-farm exodus slowed, both the number and the proportion of low income households may have increased.

Continued technological improvements, along with increased costs and congestion of urban sites, should continue to spur rural industrial growth. (5)

### Academic Groves May Be Money Trees for Rural Poverty Areas

The A,B,C's of improving the economic plight of a depressed area usually read like this:

—Add more industry.

—Build up recreation and tourism.

—Continue to modernize commercial agriculture.

There's a D, too, on the list: Developing educational, health and other community services.

One of the prime needs—if not the overwhelming need of business today—is an adequate, well trained labor force.

An area capable of training many thousands in an advanced educational institution thus becomes highly desirable to businesses in need of employees with technical and other specialized skills.

A college or junior college set up in that area could turn out to be a development enterprise in itself that might take that area off the depressed list.

But before this can happen there will probably have to be a concentrated upgrading of existing community services—particularly housing, public schools, and health facilities.

Not all rural areas—or even all urban areas—can hope even then to succeed in making advanced education a basis for their economic growth.

The initial development costs, for example, are likely to be heavy and will possibly require funding from outside sources.

Nevertheless, a scenically and socially attractive rural area that is reasonably near a population center could be an ideal place for one of the many colleges and junior colleges that are needed in the current education explosion.

And it seems well worth exploring the further possibilities of education as a key part of a development package for rural areas needing it. (6)





## THE RABBIT RAISERS

*Rabbits on the meat counter have been overrun in the past 20 years by cheaper and also more plentiful chicken, but some rabbitries hope a sales rebound lies ahead.*

Magicians pull them one-two-three out of hats. But rabbits themselves are no amateurs when

it comes to multiplication tricks.

A doe rabbit weans an average of 28-30 young a year. Young "fryer" rabbits weigh from 4 to 5 pounds after 2 months. More than half the weight is carcass meat—and, except for the bones, is good to eat. Some people consider it "prime." (The ready-to-cook weight is from 1½ to 3½ pounds.

This yields from 2 to 4½ cups of cooked meat.)

Rabbits over 3 months old are labeled "roasters." They usually weigh over 4 pounds ready-to-cook, and their meat is firmer and more coarsely grained. Not many of them are marketed.

Despite the productive attributes of the rabbit, not to men-



tion the furry pelt it provides for good measure, U.S. commercial output of rabbits has fallen off considerably in the past 20 years. (Statistics of some traders, however, indicate that their sales have rebounded at the rate of 8 to 15 percent over the last 5 years.)

The general decline is due mainly to the increase in meat supplies from other sources following the rabbit boom brought on by World War II shortages.

In particular, the poultry industry—rabbitries' prime competitor—has revolutionized its production methods and the price of poultry has gone way down.

Also, urbanization of the economy in California (the major rabbit raising area until the 1950's) displaced many rabbit hutches and forced a number of rabbit enterprises to go out of business. In recent years, Arkansas has taken over as the center of production and processing.

Even so, rabbit is still on America's menu. We eat an estimated 20 to 30 million pounds of rabbit a year. And one major marketing firm reports that rabbits' bid for favor with U.S. consumers is meeting with a fair measure of success—probably because of national advertising efforts and instruction in home economics classes.

Commercial output of processed rabbit meat is estimated at about 4 million fryers annually. Most of it is sold cut up, in frozen form. The largest USDA inspected rabbit processing enterprise, in Arkansas, uses rabbits from about 1,000 suppliers—many of whom have "backyard" operations.

Hobby producers raise another 4 to 8 million rabbits which they often sell locally. This brings total rabbit production to somewhere between 8 million and 12 million fryers. The estimated return to producers comes to about \$10 million annually.

About 700,000 rabbits a year are now being produced for use

in medical research. And rabbits are expected to play an increasingly important role in research and teaching. Also the demand for biological materials from rabbits appears to be continually expanding.

The New Zealand White is the most popular breed—both for meat and for research purposes.

Commercially grown domestic rabbits, incidentally, are not to be confused with the dark, wild rabbits that scamper through woods. Wild rabbits are prohibited for sale in many states, and as hunters know, their meat is strong and gamey.

Raising rabbits is something that's relatively easy to do on the side—by young and old. It doesn't take much capital, either, to start a small rabbitry.

If demand increases and marketing outlets are strengthened, rabbitries might prove to be a feasible way of providing supplemental earnings that would be especially welcome in low-income rural areas.

Rabbits, moreover, are a good source of protein at relatively low cost for those who raise them. This might enhance their production potentials not only in poorer regions at home but also in less developed countries abroad.

However, no rabbit producer can feed just his producing does and litters. He also has to feed his nonproducing does and his replacement does and bucks. This means that it takes between 4 and 5 pounds of feed to produce 1 pound of marketable rabbit meat.

Labor requirements averaged 6.4 hours per doe per year in 1962-63 when USDA participated in a study of the industry's potentials. Investment costs averaged about \$35 per doe. And average returns per doe were \$29.59 with costs of \$23.04. In other words, each doe brought in about \$6.50.

(However, according to current estimates by a leading rabbit processor, each doe now brings in

from \$7 to \$10 per year for the average producer. And some producers have been able to make up to \$15 per doe by selling breeding stock and laboratory rabbits, and by using selective breeding techniques so that average production per doe increases to 35 or more fryers per year.)

Government inspection of rabbit meat is not mandatory as it is for many other meats, nor is it free.

Nevertheless, USDA inspection service is available and some processors ask and pay for this service. Their products can thus carry the USDA inspection mark which many consumers look for when they buy poultry or meat of any kind.

Meanwhile, it's getting harder all the time for a rabbit to get away with its skin.

Fickle fashion (and the amount of rabbit pelts we import from France) dictate market demand for rabbit fur. And these days, despite the inroads that man-made fibers have made in the fur market, rabbit fur continues to be surprisingly popular. Trade circles report that present prices are well above those of 2 years ago.

All things considered, the multiplication antics of the U.S. rabbit—especially if she's well bred—are not likely to be discouraged for a while yet. (7)

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### Food Firms Spend More on Ads Since '50—Especially Retailers

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It doesn't take any advertising to get people to eat. But to get people to eat in a certain restaurant, buy their groceries in a particular store, or reach for a new product—that's another question.

Food marketing corporations need volume to keep per unit costs down and profits up. And that's why most of them—especially food stores, eating, and drinking places—are spending ever more



for the compelling jingle, the persuasive picture.

Total outlays for advertising by corporate processors, wholesalers, retailers, and eating and drinking places rose each year between 1950 and 1968—from about \$591 million in 1950 to \$2.5 billion in 1968.

Large corporate firms (with assets of \$50 million and over) generally spend a larger percentage of their sales dollar for advertising than smaller firms.

In 1966, for example, large firms spent an average of 2.6 percent of each sales dollar while small firms spent only 0.8 percent.

The confectionery products industry was the only food manufacturing industry that did not increase the percentage it spent for advertising between 1950 and 1966.

The meat, dairy, canned and frozen foods, bakery, and sugar industries showed small increases in the percentage of sales dollars devoted to ads.

Grain mills and other food and kindred products industries showed large increases.

When industries raise their expenditures for advertising, there may be a parallel uptrend in the number of new products being introduced. And the variety of food items that appeared in retail outlets between 1950 and 1966 indicated a step-up in the rate new products hit the shelf. (8)

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### **Ever More Potatoes Are Rolling To Market in Processed Forms**

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Peeling potatoes is nobody's favorite chore.

This may explain why the potato industry has been changing over to production of more processed potatoes. And "change" is a characteristic of the potato industry in general.

Output of potatoes—no matter where they wind up or in what form—varies greatly from year

to year. Weather and natural conditions are one reason, but shifts in prices are another.

And extreme ups-and-downs in potato prices seem to be the rule rather than the exception. Small shifts in production tend to have a relatively large effect on prices.

Despite uncertainties of weather and prices, from 1954 to 1968 there was a consistent upward trend in production. And though prices varied, they revolved around a fairly stable average during those years—an indication that demand for potatoes has been strengthening.

Potatoes are harvested at different times in different areas. Recently, more of the Nation's late fall crop has been held in storage to compete with potatoes that come on the market in winter and early spring.

With this increasing importance of the fall harvest, both shippers and processors of fresh potatoes are showing interest in year-round marketing rather than the traditional 8-month or 9-month trading season.

Idaho is still the major producing area. Maine, California, and the Red River Valley of Minnesota and North Dakota are the other leading potato sources.

But Washington now appears to be outpacing these traditional suppliers in rate of production increase in an effort to surpass neighbor Idaho. For the statistical moment, however, Idaho's ever larger potato harvest is giving it an increasing share of the total market.

Potatoes are easily Idaho's leading field crop. Cash receipts to growers have been estimated at about \$123 million—exceeded only by receipts from cattle and calves as the major source of farm income.

The processing and packaging business adds another \$75 million each year to Idaho's income from potatoes.

Prices for Idaho potatoes fluctuate as much as they do for

others, and are very much determined by the volume of national marketings.

But prices for Idaho potatoes tend to center around a higher average price in the terminal markets than potatoes from other areas, and many buyers continue to favor Idaho spuds.

Idaho's fair-haired position in the potato market is attributed in part to its predominant variety—the Russet Burbank—and also to Idaho's effective marketing services and quality controls. Advertising and promotional programs of the Idaho Potato and Onion Commission, too, have probably had considerable impact.

In addition, Idaho has kept well abreast of nationwide advances in potato processing. Over half of the Idaho crop was processed during each of the past 5 years, and in 1968 almost 60 percent of the harvest was processed.

Even so, Idaho's share of the total U.S. market for processed potato products is actually slipping. In the early years of processing almost all frozen or dehydrated potatoes were grown in Idaho. But in 1968, Idaho's share was only about 53 percent.

Potato processors—in Idaho and elsewhere—face many marketing decisions: where to locate facilities, who to buy supplies from, when and how much to buy, who to sell to. Most of these decisions have to be made by individual firms.

However, group decisions on such matters as provisions for marketing orders and agreements, and even advertising and promotional programs will in all likelihood continue to be made by the industry as a group.

And the continuing problems of price instability, income disparity, relative bargaining power of market participants, and regional economic development remain to be solved as potato growers plant for the first of their 1970 harvests. (9)



# OUTLOOK 1970

How can people in agriculture and in rural areas cope with the problems emerging in the 1970's? And how can they profit from the vast potentials the decade offers?

In an effort to put these headline questions and the contributions of agriculture in proper perspective, economists in industry and government met together in Washington, D. C., Feb. 16-19, at the annual National Agricultural Outlook Conference. (The first one was held in 1923.) Conferees included government policymakers, agricultural economists, businessmen, financial experts, educators, and scientists.

The conference scope was the broadest in its history: Agriculture and the people involved are

an integral part of the Nation's whole economic and environmental complex. They help sustain it and are sustained by it.

The 1970 Outlook discussions appropriately emphasized the immediate months ahead but in a setting focused beyond the near horizon.

Among the principal subjects were the national and international economic situations and their impact on agriculture . . . outlook for agriculture and specific farm products . . . agribusiness . . . consumer affairs . . . food and nutrition . . . family resources . . . protecting our environment . . . and rural development.

The general tenor of discussions is reflected in the following selected highlights:

## THE NATIONAL SETTING

The economic activity of a nation and its people's way of life provide a basis for appraising demands on farming and the agricultural industry.

This base is also useful in assessing opportunities open to producers, processors, and others who buy and sell agricultural products.

The year 1970 will probably bring a pause in economic growth as government policy moves to slow excessive economic activity and limit price inflation.

However, continued gains in after-tax incomes can be expected this year in view of rising wages, the reduction in the personal income surtax, and increased social security payments.

## CONCERNING THE CONSUMER

Consumers are everybody. And most everybody agrees on certain common priorities.

It makes little difference whether they are poor or affluent or whether they live in a big city slum, at the wideopen crossroads of a highly rural area, or within the confines of a "fringe-area" suburban development.

Everybody wants a secure, adequate income. And almost everybody wants a job.

Everybody who has children wants them to be healthy. And also wants to be able to educate them in a healthful and pleasant environment replete with clean water, fresh air, open spaces, and parklands.

Everybody, too, wants food prices and other living costs to stay within the range of their income, whatever it is.

Making nutritious food available to all—especially our very poor—is among priorities that could and should be met the soonest. A number of forward steps have already been taken, such as the recent liberalization of the Food Stamp Program. More are

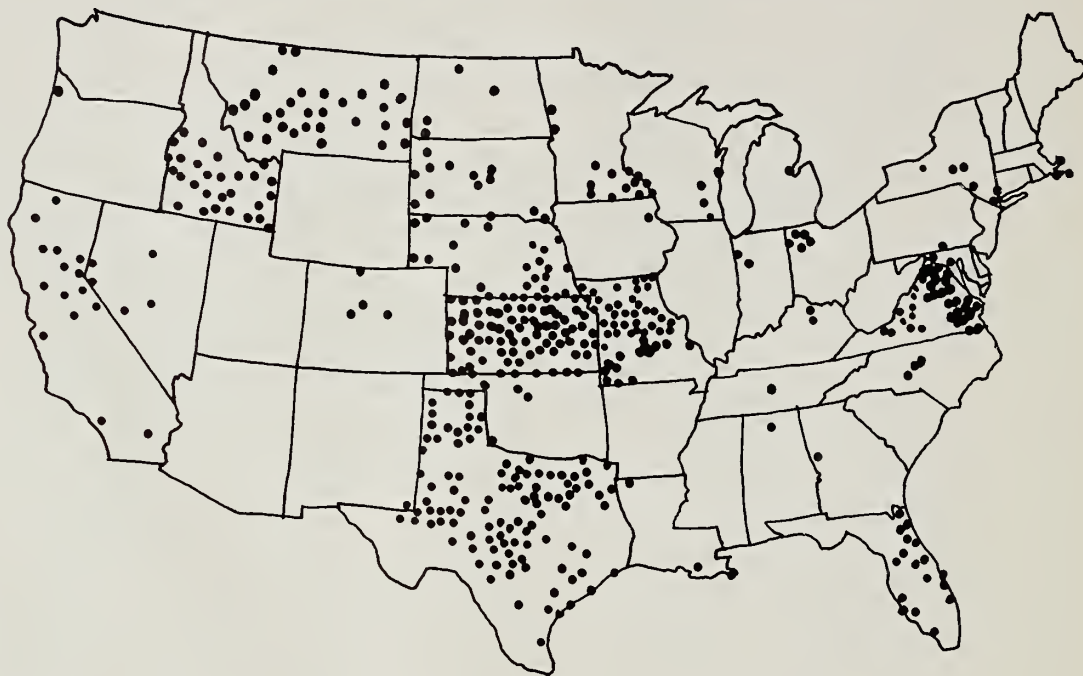
expected in the immediate offing.

In several instances, industry and government are teamed up together in efforts to develop

more effective methods of getting food to the people who need it. One example is a highly modified and magnified type of "meals on

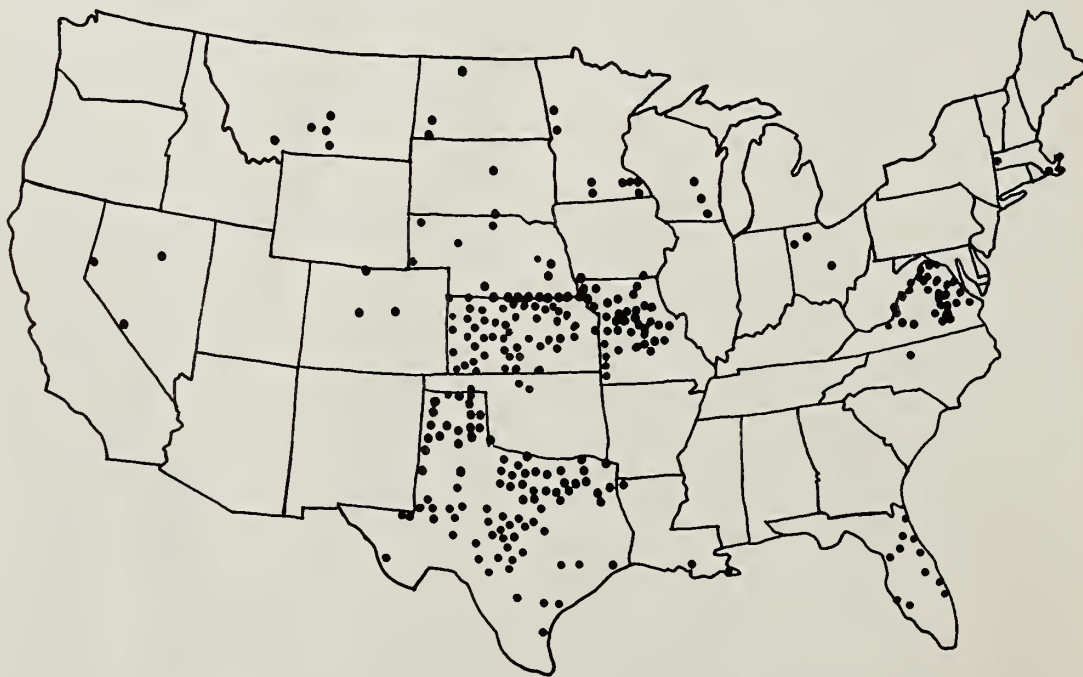
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## PROGRESS IN FOOD PROGRAMS



**Above:** On January 1, 1969, there were 485 counties and independent cities out of about 3,129 in the Nation that had no operating food stamp or food donation programs (excluding school lunches) and had not requested them.

**Below:** On January 1, 1970, there were only 281 counties or independent cities without food programs. By January 23, the number was down to 272, and the administration believes all areas will have programs by July 1 of this year.





wheels" for schools or institutions without food preparation facilities.

For everybody, some further increase in retail prices of food is in prospect between now and mid-1970, but at a slower rate than last year's.

"Eating out" will in general cost more this year than last, with price rises about in line with higher costs of services.

Retail prices for dairy products, cereal and bakery products, and sugar and sweets are likely to continue upward.

Little change is expected for fats and oils products. And prices of fruits, chicken, and eggs should average the same to lower than last year.

## RURAL PEOPLE AND PLACES

Stronger emphasis on ways to improve employment opportunities in rural areas can be expected.

(And by a recent definition, these areas are not just sparsely populated country communities but may include cities with populations up to 50,000.)

Many issues and conflicts are involved in various strategies to create new jobs in these areas. Among the many is the role that tax concessions might play in bringing a new industry to a depressed part of the country.

Before rural developers set their course they need answers to many questions:

—What is actually occurring in the overall composition of the labor force and labor market?

—How do these changes, and others that may be expected, affect job possibilities for rural people?

—What are the limitations and problems that a rural-oriented industry must face?

The rural resident himself is particularly interested in answers to such questions as these:

—Under what conditions will

industry move into my community?

—If it does, will it raise my income and my level of living?

—How can I improve my skills and abilities?

—Can my abilities be matched up with those of rural industry?

One tool to help answer some of these questions may be the National Input-Output Model. Its use is likely to be stepped up in coming months.

Economists can employ the Model to measure the potential impact of all sectors of an area's economy when some change is made or forecast in any one of the sectors.

## FARMERS' PROSPECTS

World view: Increasing prosperity—and prospects of further economic and technological advances—should make it possible to produce an ever-larger volume of crops and move them from farm to consumer.

The rate of increase in agricultural output of the industrial nations showed a slight slackening in 1969.

But in the less developed countries, output rose significantly above the long term trend line.

Per capita output in the less developed countries as a whole was the highest since 1963.

The situation at the beginning of this year was particularly favorable for less developed nations with the largest populations—notably India, Pakistan, and Indonesia.

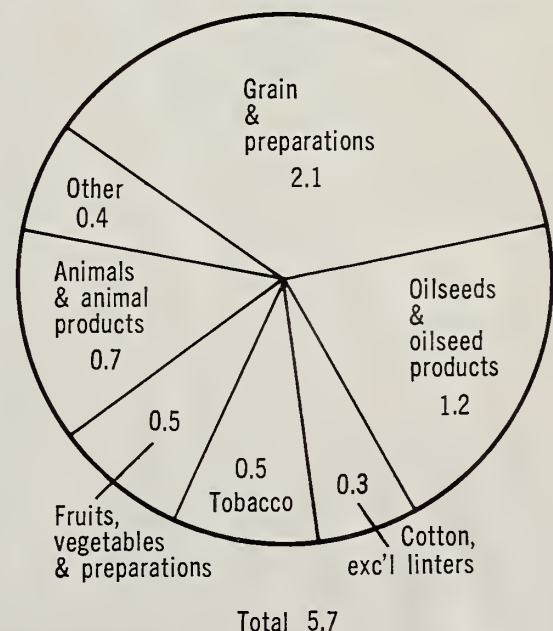
But for agricultural producers and traders, increased worldwide production, coupled with maintenance of trade barriers in some important world marketplaces, means stiffer competition.

Moreover, after 4 years of bumper harvests, grain stocks are now especially cumbersome in both importing and exporting countries. The outlook for world grain trade is therefore not much more favorable this year than last.

Even so, our own U.S. export picture—somewhat dim last year—is expected to be brighter in 1970. (In the first half of this fiscal year, the value of exports to Japan was up about one-fourth from that a year earlier.)

Continued strong gains are in sight for soybeans, some pickup for corn, and possibly for tobacco. Prospects are least favorable for cotton.

U. S. Agricultural Exports: Value by commodity groups fiscal year 1969 (billions of dollars)



**THE GRAIN FAMILY** (its leading members are wheat, corn, rice, and grain sorghums) contributes the most to U.S. export earnings from farm products. Total value of all U.S. farm exports is expected to surpass \$6 billion in fiscal 1970, compared with \$5.7 billion for the year ending June 30, 1969. The relatively large size of the grains' slice will probably not change much. Oilseeds' portion (mainly soybeans) will increase—and possibly tobacco's slice.



On the home front: The 1960's brought a marked improvement in the average personal income of farm people and a narrowing of the gap between their incomes and those of nonfarm people.

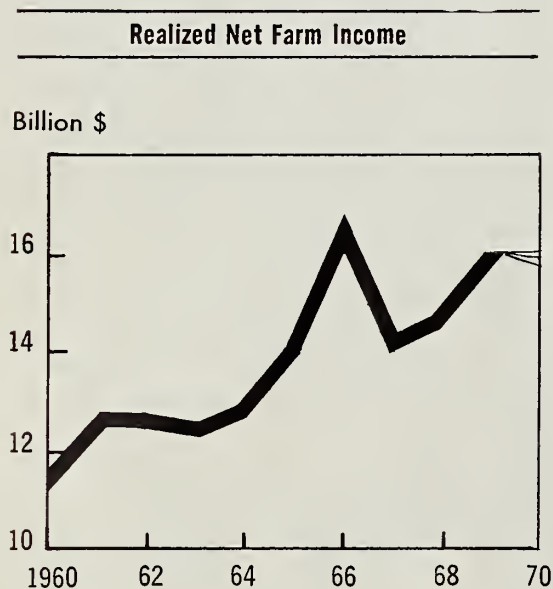
Though outlays for production items and services rose rapidly last year, gross farm incomes rose even faster. As a result, farmers' net income gained substantially, rising to the level of \$16 billion.

Most of the gain in '69 came from increases in farm product prices, paced by a sizable jump in livestock product prices.

With continued strengthening of demand for products originating on our farms, cash incomes of farmers are expected to be up again in 1970.

Gross farm income may gain around \$1.5 billion from 1969. But the persistent uptrend in cost of farm inputs will probably counterbalance this gain.

Thus, farmers' net income—from farming—may stay close to 1969's estimated \$16 billion. This was one of the best years on the farmer's record book.



Total personal earnings of farmers are expected to be around \$27 billion to \$28 billion, as many farmers will continue to supplement their incomes with off-farm earnings.

Commodity highlights: Crop harvests may total a little bigger in 1970. When a fix on this year's planting intentions are made in March, they are expected to point to more cotton, not much change in feed grains and soybeans, and perhaps quite a bit less wheat.

Livestock and livestock products are likely to continue as the brightest part of the farm scene in the months ahead.

Prices were exceptionally strong during 1969 and the 1970 near-horizon for prices is also bright.

Supplies of livestock and products this winter have been near record levels, but demand continues to expand.

Prices are expected to continue strong at least into midyear. After that, the anticipated pick-up in supplies may bring some easing of prices later in 1970.

Fruits and vegetables, both fresh and processed, should be in ample supply this year—with the exception of fresh winter vegetables.

Total fruit supplies during the first half of 1970 are expected to be substantially above a year earlier.

However, Florida freezes have introduced some uncertainty about the size and quality of the harvest.

Damage to the California citrus crop as a result of freezing temperatures also is still undetermined. As of now, it appears that quality may have suffered and there will be an above-average diversion of California's orange crop into processing outlets.

Canned and frozen vegetable supplies remain large but moderately below last year's record volume.

Supplies of fresh winter vegetables will probably not be as plentiful as a year ago. Freezes in both Texas and Florida have taken their toll—especially in snap beans, green peppers, cu-

cumbers, sweet corn, and tomatoes.

Soybean usage this marketing year may be 13 percent to 15 percent above 1968/69's level of 950 million bushels, judging by recent strong demand.

And uncertainties in world supplies of competitive fish meal and oil and sunflowerseed oil could result in an even larger increase. In this event, soybean use could about balance the 1969 U.S. soybean crop.

Relatively low commercial carryovers last fall—both at home and abroad—and rising domestic requirements for oil and meal lend added demand strength.

Thus, the U.S. soybean carry-over next September 1 may only moderately exceed, at most, last September's 322 million bushels.

Wheat prospects are brightened by extensive farmer use of the loan program and an anticipated gain over last year in exports, despite indications of a rise in the carryover again this summer.

Stocks on January 1, at 1,527 million bushels, were around 180 million above a year earlier. But a drop of "free," or privately held stocks—coupled with other factors—suggests that prices may average somewhat higher than the \$1.28 per bushel average farm price of January-May 1969.

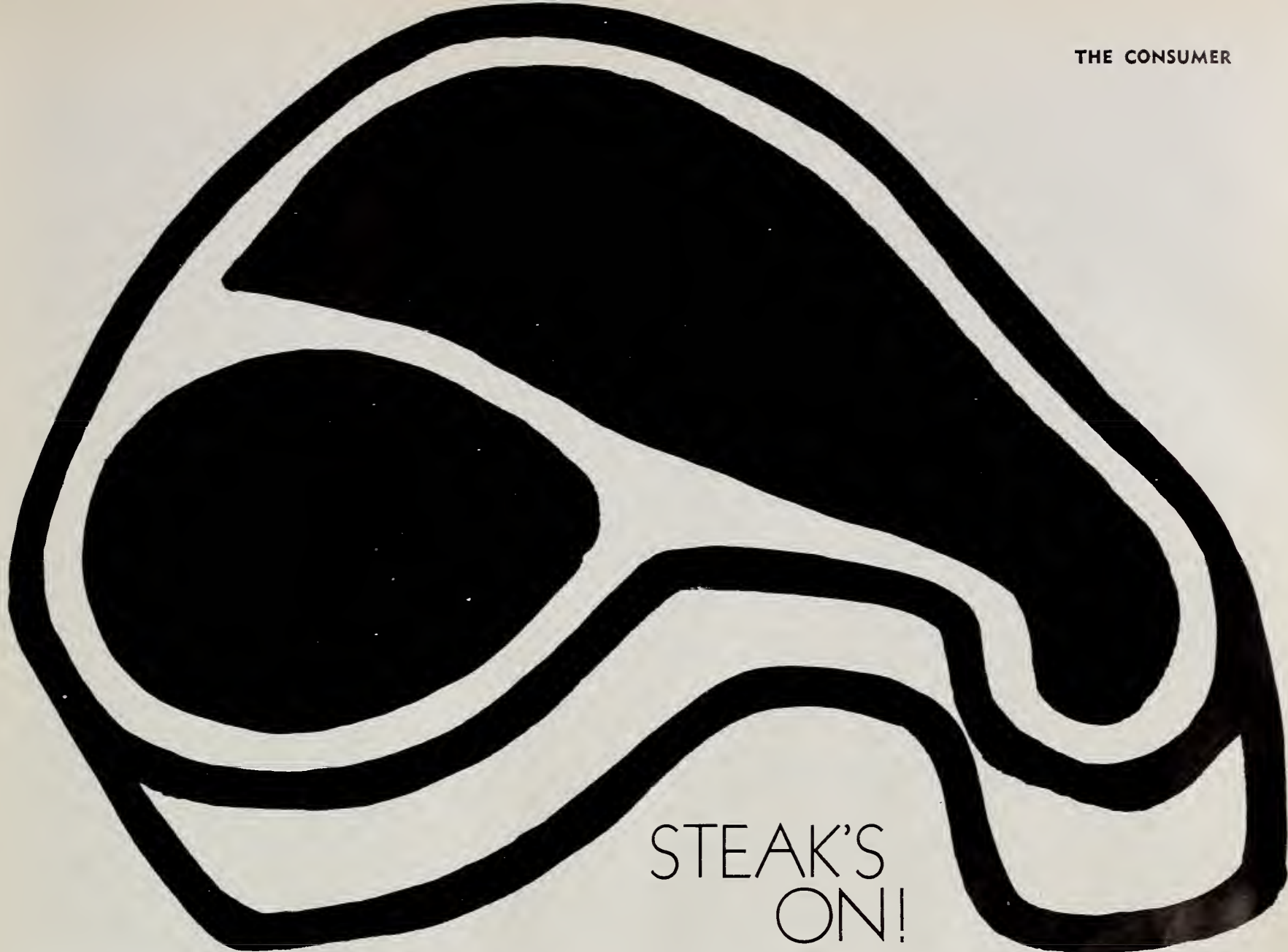
Cotton carryover next summer is estimated at around 6 million bales—half a million below last August's stocks and the smallest since the early 1950's.

Although disappearance in 1969/70 will be under last year's 11 million bales, it still will cut into a supply that is almost 1 million bales short of the 17½ million of 1968/69.

\* \* \*

NOTE: An outlook "kit" containing most of the Conference's speeches is available from Division of Information, Office of Management Services, U.S. Department of Agriculture, Washington, D.C. 20250.





## STEAK'S ON!

*Rising incomes, which gave consumers the wherewithal to enjoy not only more beef but more expensive cuts, puts steak ahead of hamburger on U.S. family menus.*

In New York, a certain Mr. Martin Morrison opened up a restaurant in the early 1800's. He called his place a "porterhouse" (after similar English establishments so named because of the porter and ale they sold.)

Mr. Morrison's porterhouse featured a very special cut of beefsteak on its menu—a steak which quickly gained fame with the New York public of the day. Now that same beef cut has become nationally renowned as, if you haven't already guessed, the porterhouse steak.

Today steak—porterhouse, T-bone, club, round, and so on—is

just about everybody's favorite meat, judging from the results of nationwide surveys of household food consumption.

The last such survey, taken in 1965, indicated beefsteak represented more than two-fifths of our total beef consumption at home. That put it a cut above competitors in the beef popularity poll. And beef was already No. 1 among red meats.

Back in 1955, beef was the big meat, too. But at that time, steak and ground beef had an almost equal slice of beef consumption—31 and 30 percent, respectively.

It took a decade of income gains, which gave consumers the wherewithal to indulge their appetite for more expensive cuts, before steak could reign supreme.

Each 10-percent increase in family incomes in the spring of 1965 prompted a 2.3-percent per

person boost in the poundage of beef eaten, according to calculations of ERS economists.

But higher income families not only beefed up their beef helping, they shifted to more expensive cuts, too. Hence, the value of per capita beef consumption rose even more—3.4 percent—when family income was 10 percent higher.

Members of households in the \$15,000 family income bracket in 1965 were eating 1.2 pounds of steak apiece during the survey week. In contrast, servings per person in families with incomes under \$3,000 averaged only 0.4 pound a week.

Consumers also enlarged their ground beef helping as family incomes rose to \$5,000. Above this level, per capita consumption of the humble hamburger tapered off.

The biggest boost in steak use



occurred in the Northeast. There, the quantity of steak consumed as a percentage of total beef rose from 31 percent in 1955 to 48 percent in 1965.

Households in the urban and rural nonfarm Northeast increased their steak consumption level by almost a fifth. Among the region's farm families, however, steak's share rose but 2 percent.

A continent away, in the West, people were also beefing up their steak use but at a slower rate than in the Northeast. The largest increase in steak consumption again occurred in urban areas; however, western farm families boosted their consumption level almost as much. Rural nonfarm families, in contrast, ate a smaller proportion of steak in 1965 than

they did back in 1955.

Consumers in the South and North Central Regions also set more steak on their tables in the 1960's than in the 1950's. But the increase in steak's share of each region's beef total—8 and 5 percent, respectively—was substantially smaller than in the other U.S. regions. As always, the shift to steak was most pronounced among city dwellers.

Ground beef lost considerable ground during the 1955-65 decade. Although per capita consumption during the survey week went from 0.38 pound in 1955 to 0.41 pound in 1965, this increase was far less than that for per person consumption of all types of beef combined.

As a result, hamburger de-

clined from 30 percent of the beef portion of the red meat diet in 1955 to 25 percent in 1965.

Nationwide, both urban and rural nonfarm families cut back their use of hamburger. Farm families, however, increased their use of ground beef in all regions except the West, where there was a slight decline.

On a regional basis, changes in hamburger appetites varied considerably. Consumers in the Northeast cut their rate of ground beef consumption from 30 percent of total beef use in 1955 to 17 percent in 1965.

Similar but smaller declines occurred in the West and South. But in the North Central Region, the consumer rate of ground beef usage held constant.

Higher incomes probably account for a larger part of the overall shift to more steak and less ground beef. Other factors, however, are involved in the degree to which shifts have been evidenced in various areas.

For example, shipment of primal cuts, as opposed to shipment of whole carcasses, have generally increased. This enabled people in some geographic regions—as well as urban, nonfarm rural, or farming areas within the regions—to use more of certain cuts than people in other areas.

Also, changes in distribution patterns probably have been accelerated by the sharp increase in supermarket specializing beef cuts in recent years, particularly in large urban centers.

Despite generally increased availability over a wider area, the position of roasts and beef cuts other than steaks and hamburger on U.S. menus changed but little during 1955-65.

Roasts represented 26 percent of total beef consumption at the time of the last nationwide survey. Stewing, dried, canned, corned, and other types of beef filled in the remaining 8 percent of our beef total. (10)

### STEAK IS UPPERCUT ON U.S. MENUS<sup>1</sup>

Region and household group	Steaks		Roasts		Ground		Other <sup>2</sup>	
	1955	1965	1955	1965	1955	1965	1955	1965
<b>United States</b>	<b>Percent</b>							
All	31	41	28	26	30	25	11	8
Urban	32	44	28	27	29	22	11	7
Rural nonfarm	28	36	26	25	34	31	12	8
Farm	32	36	29	25	27	31	12	8
<b>Northeast</b>								
All	31	48	28	27	30	17	11	8
Urban	33	51	28	27	28	14	11	8
Rural nonfarm	24	43	27	25	36	26	13	6
Farm	27	29	29	28	31	34	13	9
<b>North Central</b>								
All	31	36	29	27	30	30	10	7
Urban	32	37	30	28	29	28	9	7
Rural nonfarm	29	33	27	25	35	35	9	7
Farm	32	34	29	26	29	33	10	7
<b>South</b>								
All	31	39	25	25	30	27	14	9
Urban	31	41	26	26	30	25	13	8
Rural nonfarm	30	36	21	24	34	31	15	9
Farm	33	37	27	22	23	30	17	11
<b>West</b>								
All	32	44	29	26	29	21	10	9
Urban	31	46	30	25	29	20	10	9
Rural nonfarm	34	27	26	31	29	33	11	9
Farm	33	44	28	24	27	26	12	6

<sup>1</sup> Excludes quantities of those meats consumed as luncheon meats. <sup>2</sup> Corned, chipped, dried, stewing and canned beef.



## **Foods Are Biggest, But Nonfoods Are Briskest for Grocers' Trade**

Totaling up the whole year's sales slips, grocery stores sold \$70 billion worth of products during 1968 (the most recent year for a nationwide total), up 6 percent from 1967.

Consumers spent about \$51 billion—72 percent—of this money on food. The remaining \$19 billion went for alcoholic beverages and nonfood items. Spending on these latter groups was a tenth higher than in 1967, while the value of food sales gained 5 percent.

Since 1963 nonfoods and alcoholic beverages have usually been the ones registering the biggest gains in grocery store sales. Expenditures for these items rose a whopping 52 percent between 1963 and 1968. For foods, however, the increase during the period came out to only 23 percent.

Out of each food dollar that consumers took to the grocery store, they spent 2 cents more for meat in 1968 than they did 5 years earlier. They spent 1 cent less for dairy products, and nearly 1 cent less for cereal and bakery products.

Sales of fresh produce in the grocery store took roughly 1 cent more of the food dollar, while spending on processed items was down a penny between 1963 and 1968. Rapid rises in the prices of fresh produce more than offset a much greater volume of processed fruit and vegetable sales.

Nonfood items and alcoholic beverages accounted for 28 percent of the value of grocery store sales in 1968, compared with 24 percent in 1963. Nearly all the gain stemmed from stepped up sales of less traditional grocery items—clothing, cameras and equipment, and garden supplies. These items made up 7½ percent of total store sales in 1968, compared with 4 percent formerly.

Sales by chain stores in 1968

topped those of smaller firms for the first time in history. Sales by chains with 11 or more outlets accounted for all of the 6-percent increase in total grocery store sales. Sales by these large firms were up 14 percent from 1967. Those of smaller businesses slipped about 1 percent. (11)

## **School Lunch Services Available To Eight Out of 10 Youngsters**

Eight out of 10 U.S. school-children had access to a noontime food service at school during March 1968.

Most of these pupils were enrolled in schools participating in the National School Lunch Program (NSLP), administered by USDA's Food and Nutrition Service. However, some of these students had lunch in schools with other types of food service.

A recent study by the Economic Research Service shows that over 70 percent of all schools offer a lunch service. The proportion of schools with lunch programs is highest in the Southeast—95 percent; lowest in the Northeast—61 percent.

Lunch service was available in three-fourths of the schools in places with less than 10,000 population. But it was offered by only two-thirds of the schools in larger population centers.

Also, lunch service was more prevalent in schools with larger enrollments. At least 80 percent of the schools with 500 or more pupils had lunch services, compared with only 55 percent of those with less than 250 pupils.

Because large schools were more likely to offer some type of lunch service than small ones, lunches were available to more students than the percentage of schools with food services would suggest. The seven out of 10 schools which provided lunches at the time of the ERS survey accounted for 82 percent of the 50.7

million pupils in the United States.

Some type of school lunch was available to at least nine out of 10 pupils in schools with 750 or more pupils, in junior and senior high schools, and in schools located in the Southeast and Southwest.

Daily participation in school lunch programs during March 1968 totaled nearly 20 million students—or two-fifths of national enrollment. However, the proportion participating varied considerably by region and by school characteristics.

For example, only 28 percent of all pupils in the Northeast were eating lunches provided by school facilities on a normal day. But in the Southeast, the proportion was 64 percent. And half the pupils in towns with less than 10,000 population ate school lunches daily, while only about a quarter of the students in major population centers participated in lunch programs.

At the time of the survey, 2.2 million pupils in public and private NSLP schools were receiving free or reduced price lunches daily. These pupils represented 6 percent of total enrollment in NSLP schools and consumed 12 percent of all plate lunches served.

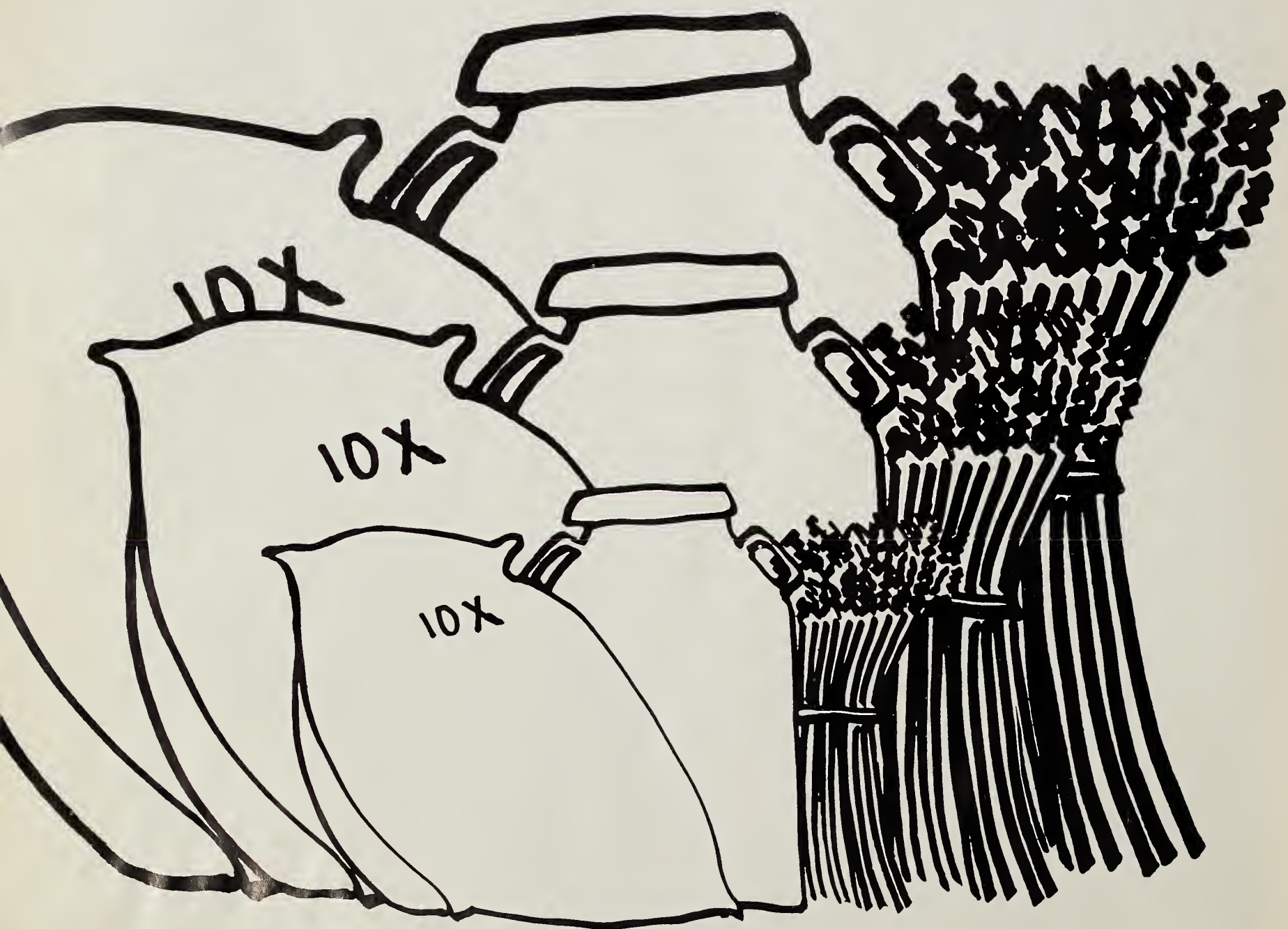
The highest proportion of needy children receiving free or reduced price lunches—13 percent of total enrollment—was in the Southeast.

Over half of all the free or reduced price NSLP lunches were served in elementary schools. Also, schools in areas with less than 10,000 population accounted for significant proportions of these lunches.

Schools outside the NSLP provide lunches free or at reduced price to needy children, too. The ERS survey found that nearly 100,000 such lunches were served daily, primarily in elementary schools, large schools, and urban areas. (12)



# European Community's Surplus Problems





*How European Community copes with mounting overproduction of wheat, milk, and sugar is matter of concern to world agriculture—including our U.S. grain trade.*

Agricultural policies and prices within the European Community (EC) may have to be revised to bring supply and demand into a reasonable balance and keep costly surpluses from mounting higher.

Common policies have now been adopted for most all major agricultural commodities produced in the Community. And while these policies differ in some of the specifics, their basic thrust is quite similar:

To support internal prices at levels considerably above world prices, and thus discourage utilization while encouraging high cost production. In addition, production is not controlled (except in the case of sugar).

As a result, sizable surpluses have piled up—especially of wheat and dairy products, and sugar as well.

During the 1968 crop year, the six nations of the EC—West Germany, France, Italy, Belgium, the Netherlands, and Luxembourg—harvested 12 percent more wheat than their 185 million consumers and EC industries could use. (In the early 1960's, the Community's wheat production was about 10 percent short of its needs.)

Increased yields and favorable weather—on top of price incentives—have augmented the surge in soft wheat production.

And in the face of a growing glut in the world wheat market, disposal of the wheat crop has been a real headache for the EC—and an expensive one.

Lavish export subsidies have been applied, and in some cases they have been greater than the sales price. Also, the Community has increasingly made use of "de-

naturing" subsidies to bring the price of wheat down to levels for animal feed. This subsidy is only paid on wheat that has been denatured to make it unfit as food for people.

In spite of these measures EC grain stocks are now at a record level of over 15 million tons, more than half of which is wheat.

It is apparent that Community demand for its own wheat—and, with some exceptions, for all grains—has nowhere near kept pace with production increases.

Total and *per capita* utilization of grains (for food, animal feed, and industrial purposes) has in general been running behind that in the United States, despite our own increased abundance. Here are the latest figures available for comparison on a marketing year basis:

#### DOMESTIC USE OF GRAINS, 1967/68\*

	TOTAL	PER CAPITA
	<i>Metric tons</i>	
U.S.	146,238,000	.723
EC	74,795,000	.430

\*Wheat, corn, oats, barley, sorghum grain, and rye (latter included in EC figures only).

For dairy products and sugar, a similar situation exists.

With a steady expansion of dairy herds—along with higher yields and support prices—dairy production has been outstripping domestic use at an increasing rate.

EC exports are possible only at enormous cost, since world prices have been depressed because of widespread dairy overproduction.

The Community has initiated programs to encourage greater domestic use of milk products in animal feed, manufacturing, and in food aid projects. Yet surplus stocks of butter—the most common way to store milk—have con-

tinued to grow at an alarming rate. Present stocks are over 400,000 tons.

For sugar, 1968/69 production was 15 percent greater than the EC's population required.

Since the early sixties, the Community has been a net exporter of sugar. World prices, however, took a tremendous drop in 1965 and have since remained low. With a domestic price within the EC about four times the world price, foreign markets suddenly became very expensive means of disposal.

The diversion of sugar supplies into animal feed, an alternative and almost equally expensive means of disposal, has also been subsidized.

Community production quotas, which were established primarily to protect national sugar interests, have been ineffective in controlling overproduction.

The problems involved in the disposal of all these surpluses—which must be whittled down sooner or later by EC sales abroad or at home—are at the core of a controversy over the future direction of the EC's agricultural policy.

In fiscal 1969, market support and export subsidies cost the EC nearly \$1.8 billion. These costs have helped to precipitate a struggle over the financing of the Common Agricultural Policy (CAP). They have also stimulated new interest in agricultural reform.

For, while the EC has sizable surpluses of farm commodities, it is running a deficit in others—notably fats and oils, feed grains, and beef.

The Community produced only 36 percent of its fats and oils requirements in fiscal 1967. Primarily its deficit was in vegetable oils and oilseeds. Import demand for these products has remained strong—stimulated to a great extent by the high price struc-



ture for grains and butter.

In the feed grain sector, imports have continued at a high level. Barley is an exception. In this case, the lowering of EC barley export prices made it possible for France to sell about 470,000 tons of barley to Japan in 1968/69.

The EC is shortest on corn. However, higher Community prices have stimulated corn production and acreage planted to corn in Germany, France, and Italy. These production increases, combined with the increased use of surplus wheat for feed may well enable the EC to reduce its deficit in feed grains.

The EC produced about 90 percent of its beef needs in 1968. This is an area where the Community wants to increase output, as rising incomes portend a rise in beef consumption.

In particular, planners would like to step up output of beef at the expense of dairy products. And it appears feasible for present breeds of cattle in Europe to be used as foundation stock for specialized beef herds.

Community production and consumption requirements of pork, poultry, and eggs are just about in balance.

No matter how the EC copes with its agricultural surpluses, the outcome is of considerable importance to American farmers, who have a large stake in the West European market.

The EC imports and exports more than any other trading unit in the world. And this trade includes agricultural imports that have been running about \$12 billion yearly and agricultural exports of around \$6 billion.

Imports of U.S. agricultural products by the EC have averaged over \$1.4 billion during the past 5 years, though they slipped to around \$1.3 billion in 1968/69. Feed grains, oilseeds and products, and tobacco were the most important components of this trade. (13)

## Uruguay's Agricultural Reforms Aim To Restore Plentiful Years

In 1603, Spain's colonial governor of Paraguay is said to have shipped 100 cattle and some horses down the Rio de la Plata into the Banda Oriental territory (modern-day Uruguay). The animals multiplied and ran wild, and gauchos from across the river in Argentina and Paraguay hunted them for their hides.

Whatever the actual circumstances under which Uruguay's livestock industry began, cattle and sheep have been the mainstay of the country's economy for over 300 years.

Until relatively recent years, the smallest independent nation in South America was renowned for its prosperity, stability, and advanced social welfare programs.

But a burgeoning welfare state, ever increasing inflation, and a decline in foreign exchange earnings steadily siphoned off profits from agriculture and about 1950 Uruguay entered a period of stagnation—particularly in agriculture.

Now, however, a comprehensive 10-year development plan launched in 1965 might return to the country some of its plenty of previous years.

The national development plan calls for reforms not only in administration but also in 10 agricultural areas: research, extension, certified seed, agrarian reform, farm credit, grains, oilseeds, sugar, wine grapes, and livestock.

A pasture improvement plan initiated earlier, in 1960, has already been successful in demonstrating the profitability of improving pastures and updating the care and management of cattle.

Ranchers find that new pasture management techniques require more closely controlled management. Therefore, individual

ranchers now spend more time in on-the-spot daily supervision of their land than in past years.

Where they have improved pastures, they can raise three to five times as many animals as they did on unimproved land. And the faster maturing animals provide proportionately more meat and wool.

More than nine-tenths of Uruguay's agricultural area is in pasture, and production of livestock for beef and wool is not only the leading farm enterprise but also the most important foreign exchange source.

Under the present overall agricultural development plan, the Ministry of Agriculture not only shares research results with the farmer, but also encourages him to contribute his ideas for improvement in areas where he feels there is need for additional research and study.

Assuming progress under the 1965-74 program and reasonably good weather, both crop and livestock production—exports, too—may well increase substantially over the next few years.

Although Uruguay trades with many Western Hemisphere countries, Western Europe has been and remains the chief outlet for the country's traditional exports—wool, meat, and hides and skins. These items accounted for almost 88 percent of the value of Uruguay's total agricultural exports in 1967.

Since both Uruguay and the United States produce many of the same commodities, agricultural trade between the two countries is small.

The major share of U.S. exports to Uruguay consists of non-agricultural products. However, our sales of agricultural items usually are \$2 million annually.

U.S. agricultural imports from Uruguay usually account for more than three-fourths of total imports from that country. Wool and meat are the principal components of our import trade. (14)



**CHANGES IN FIRM AND PLANT SIZE IN BROILER AND TURKEY PROCESSING.** L. Faber and W. W. Gallimore, Marketing Economics Division. PES-259. (Reprint).

The broiler and turkey processing industries continue to grow and change. This article discusses changes in firm and plant size in the 1960's and examines some of the implications of these changes.

Federally inspected slaughtering plants account for the bulk of chickens and turkeys slaughtered. In 1968, such plants accounted for 90 percent of U.S. production of young chickens and 91 percent of U.S. turkey production. Comparisons in this article are based on data on Federally inspected plants.

**SEASONAL CATTLE FEEDLOTS IN COLORADO.** C. K. Gee, Farm Production Economics Division, in cooperation with Colorado Agricultural Experiment Station. Colo. Agr. Expt. Sta. Bull. 540S.

This study presents findings from a recent survey dealing with the economies of seasonal farm feedlots in Colorado which have facilities for less than 500 head of cattle at one time. The primary objective is to establish current levels of inputs, production, and financial benefits associated with cattle feeding.

**REVISED PRICE SPREADS FOR BEEF AND PORK.** L. A. Duewer, Marketing Economics Division. ERS-435.

This report was issued in conjunction with the publication of a revised series of price spreads for beef and pork. In recent years, several industry groups and the National Commission on Food Marketings have questioned whether weekend specials were fully considered in the computation of average retail prices. Computations included some of the effect of specials, but did not fully allow for the extra volumes sold at special prices.

As a result of a complete re-



## RECENT PUBLICATIONS

*The publications listed here are issued by the Economic Research Service and cooperatively by the State universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective States.*

view of all procedures, a considerable number of revisions have been made to more accurately compute price spreads for beef and pork. These include the effect of price specials, an adjustment for retail shrink, use of carlot wholesale prices, and changes in the computation of byproduct values. Some of these revisions tend to narrow the estimated spreads while others tend to widen them.

**EGG PRICE RELATIONSHIPS, 1962-68: SELECTED MARKETS, TRADING LEVELS, GRADES, SIZES.** G. B. Rogers, F. L. Faber, and R. J. Irvin, Marketing Economics Division. SB-445.

The selected egg price series, price differentials, and regression equations in this report should be of use to economists, researchers, price analysts, and trade firms—

especially those associated with the egg industry. The report is intended to be a reference on past price relationships and to help suggest those which may be expected in the near future.

**HUMAN RESOURCES IN THE RURAL MISSISSIPPI DELTA . . . WITH EMPHASIS ON THE POOR.** J. C. Crecink, Economic Development Division, and R. Steptoe, Southern University and Agricultural and Mechanical College. AER-170.

The Mississippi Delta region has about the highest percentage of poor rural people among the areas of the United States. In this study, about 52 percent of rural households and 62 percent of the rural population sampled were classified as poor in 1966. Seventy-nine percent of the Negro households and 84 percent of the Negro population were poor, contrasted with 28 and 31 percent for whites.

**SUPPLEMENT FOR 1969 TO STATISTICS ON COTTON AND RELATED DATA 1930-67.** Cotton and Other Fibers Section, Economic and Statistical Analysis Division. Supplement for 1969 to SB-417.

This publication serves as a statistical handbook to the Cotton Situation published five times a year by the Economic Research Service.

**FERTILIZER USE IN MONTANA, 1954-1967 — WITH COMPARISONS.** W. G. Heid, Jr., and D. K. Larson, Farm Production Economics Division in cooperation with the Montana Agricultural Experiment Station. Mont. Agr. Expt. Sta. Bul. 628.

Fertilizer use in Montana has skyrocketed especially in recent years. From 1954 to 1967 the use of commercial fertilizer in the State increased 481 percent. Fertilizer use in Montana has increased at a faster rate since 1959 than for all of the United States. However, the rate of application still lags behind the U.S. average.



**THE ECONOMICS OF CROPPING SYSTEMS FOR WESTERN COLORADO.** C. K. Gee, Farm Production Economics Division, and C. W. Robinson, Colorado Agricultural Experiment Station. Colo. Agr. Expt. Sta. Bull. 539S.

Farm profits can frequently be increased by combining crop and livestock enterprises. The highest profit enterprise combination in this analysis consists of a rotation of alfalfa hay for 3 years followed by corn silage, sugar beets, and barley as a nurse crop. Combined with this is a wintering program for weaner calves.

**SELECTED STATISTICAL SERIES FOR POULTRY AND EGGS THROUGH 1968.** Poultry and Egg Section, Economic and Statistical Analysis Division. ERS-232 (Revised January 1970).

This supplement is designed for use with the Poultry and Egg Situation, a report issued periodically by the Economic Research Service. A summary table containing data designed to keep statistics in this supplement up to date appears in the situation report, along with other special tables.

### **Looking For Plains Facts?**

Researchers and economists who have a special interest in the Great Plains States will welcome a new, highly selective bibliography compiled by the Economic Research Service.

Its title: *Selected Publications on County Government Services and Costs of Particular Interest to the Great Plains States.* N. Dak. Agr. Expt. Sta. AEMR-3.

Although prepared especially for research economists, the listing of some 185 publications includes a number in the fields of political science and public finance as well as economics.

The bibliography was designed primarily to provide an inventory of completed research in each of the Plains States, and substantial coverage of States near the region.

However, results of various county government innovations inaugurated in other parts of the country are included, since some researchers may want to project probable effects of such innovations under Plains conditions.

Also, some of the research reports included in the bibliography demonstrate appropriate methodology that could be used or adopted for research on county government in the Great Plains.

**DIVERSIFICATION AND PROFITABILITY AMONG LARGE FOOD PROCESSING FIRMS.** R. J. Arnold, formerly Marketing Economics Division. AER-171.

This study is an attempt to determine the extent to which differences in profit rates of a sample of large food processing firms can be explained by differing market structures, size of firms, and degrees of diversification.

**THE BALANCE SHEET OF THE FARMING SECTOR, 1969.** C. D. Evans and others, Farm Production Economics Division. AIB-340.

Farm proprietors increased their equity in farm assets by 4.5 percent during 1968, accumulating a total of \$243.4 billion by January 1, 1969.

This issue of the balance sheet presents various asset and liability data in general and in detail; analyzes subjects which strongly influence year-to-year changes in balance sheet values; and outlines special financial information on the farming sector compiled on bases different from the regular balance sheet.

## **ARTICLE SOURCES**

State publications indicated by (\*) may be obtained only from the experiment station or university cited. Manuscripts and special material are usually available only on request to authors.

- Wayne D. Rasmussen and Vivian Wiser, Historians, ESAD; Howard Hill, NRED; and Don Durost, FPED (special material).
- Forest G. Warren and Nan P. Mitchem, FPED, *Farm Mortgage Debt*, FMD-8.
- Neville Doherty, EDD, *Rurality, Poverty, and the Health Crisis* (manuscript).
- Walter E. Sellers, Jr., FPED, "Farm Labor—Supply and Cost" (speech given at the Northeast Regional Agricultural Outlook Workshop, Hartford, Conn.).
- Claude C. Haren, EDD, *Rural Industrial Growth in the 1960's* (manuscript).
- Alan R. Bird, EDD, "The Challenges and Rewards of Regional and Multi-County Planning" (speech given at the First Regional Planning Conference, New York Central Schools).
- Joint Task Force of USDA-State Universities and Land Grant Colleges, *A National Program of Research for Sheep and Animals Other Than Cattle and Swine*, Sept. 1969, and MED (special material).
- Leland Southard, MED, "Advertising Expenditures by Corporations Marketing Food," *Marketing & Transportation Situation*, MTS-175.
- Larry V. Summers, MED, *Marketing Idaho Potatoes—1970* (speech given at the Annual Convention, Idaho Farm Bureau Federation).
- Robert L. Rizek and George R. Rockwell, ESAD, *Household Consumption Patterns of Meat and Poultry in the Spring of 1965* (manuscript).
- Helen M. Eklund, ESAD, "Grocery Store Sales in 1968," *National Food Situation*, NFS-130.
- William H. Freund, MED, *Food Service in the Nation's Schools: A Preliminary Report*, ERS-434.
- Marshall H. Cohen and Donald M. Phillips, FRAD, *An Overview of Agriculture in Western Europe* (special material).
- Special Projects Branch, FRAD, *Agriculture in Uruguay* (manuscript).
- Carson Evans, FPED, *Motor Vehicles and Machinery on Farms* (special material).

NOTE: Unless otherwise indicated, authors are on the staff of the Economic Research Service (ERS) with their divisions designated as follows: Economic and Statistical Analysis Division (ESAD); Economic Development Division (EDD); Farm Production Economics Division (FPED); Foreign Development and Trade Division (FDTD); Foreign Regional Analysis Division (FRAD); Marketing Economics Division (MED); and Natural Resource Economics Division (NRED).



# ECONOMIC TRENDS

Item	Unit or Base Period	'57-'59 Average	1968		1969		
			Year	December	October	November	December
<b>Prices:</b>							
Prices received by farmers	1910-14=100	242	261	262	277	285	286
Crops	1910-14=100	223	229	223	217	228	221
Livestock and products	1910-14=100	258	288	296	327	333	342
Prices paid, interest, taxes and wage rates	1910-14=100	293	354	360	376	377	378
Family living items	1910-14=100	286	335	341	355	356	358
Production items	1910-14=100	262	292	296	305	306	307
Parity ratio		83	74	73	74	76	76
Wholesale prices, all commodities	1957-59=100	—	108.7	109.8	114.0	114.5	115.1
Industrial commodities	1957-59=100	—	109.0	110.2	113.8	114.0	114.6
Farm products	1957-59=100	—	102.2	103.3	107.9	110.4	111.7
Processed foods and feeds	1957-59=100	—	114.1	114.7	121.6	121.8	122.6
Consumer price index, all items	1957-59=100	—	121.2	123.7	129.8	130.5	131.3
Food	1957-59=100	—	119.3	121.2	127.2	128.1	129.9
<b>Farm Food Market Basket: <sup>1</sup></b>							
Retail cost	Dollars	983	1,118	1,129	1,186	1,194	—
Farm value	Dollars	388	435	436	477	489	—
Farm-retail spread	Dollars	595	683	693	709	705	—
Farmers' share of retail cost	Percent	39	39	39	40	41	—
<b>Farm Income: <sup>2</sup></b>							
Volume of farm marketings	1957-59=100	—	126	150	187	171	153
Cash receipts from farm marketings	Million Dollars	32,247	44,386	4,247	5,630	5,146	4,600
Crops	Million Dollars	13,766	18,847	2,154	2,264	2,733	2,200
Livestock and products	Million Dollars	18,481	25,539	2,093	2,866	2,413	2,400
Realized gross income <sup>3</sup>	Billion Dollars	—	51.1	51.9	—	—	55.1
Farm production expenses <sup>3</sup>	Billion Dollars	—	36.3	37.2	—	—	38.9
Realized net income <sup>3</sup>	Billion Dollars	—	14.8	14.7	—	—	16.2
<b>Agricultural Trade:</b>							
Agricultural exports	Million Dollars	4,105	6,228	611	646	657.8	—
Agricultural imports	Million Dollars	3,977	5,024	421	469	183.9	—
<b>Land Values:</b>							
Average value per acre	1957-59=100	—	<sup>5</sup> 170	176	179	179	<sup>6</sup> 183
Total value of farm real estate	Billion Dollars	—	<sup>5</sup> 193.7	200.6	202.6	202.6	<sup>6</sup> 207.3
<b>Gross National Product: <sup>3</sup></b>							
Consumption	Billion Dollars	457.3	865.7	892.5	—	—	953.1
Investment	Billion Dollars	294.2	536.6	550.7	—	—	589.2
Government expenditures <sup>2</sup>	Billion Dollars	68.0	126.3	133.9	—	—	142.4
Net exports	Billion Dollars	92.4	200.3	214.7	—	—	218.9
	Billion Dollars	2.7	2.5	1.2	—	—	2.6
<b>Income and Spending: <sup>4</sup></b>							
Personal income, annual rate	Billion Dollars	365.3	687.9	716.0	763.7	767.4	769.7
Total retail sales, monthly rate	Million Dollars	17,098	28,309	28,347	29,620	29,548	29,581
Retail sales of food group, monthly rate	Million Dollars	4,160	6,106	6,139	6,450	6,472	—
<b>Employment and Wages: <sup>4</sup></b>							
Total civilian employment	Millions	63.9	75.9	76.8	78.3	78.5	78.8
Agricultural	Millions	5.7	3.8	3.8	3.3	3.4	3.5
Rate of unemployment	Percent	5.8	3.6	3.3	3.9	3.4	3.4
Workweek in manufacturing	Hours	39.8	40.7	40.8	40.5	40.5	40.6
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	3.01	3.11	3.24	3.26	3.28
<b>Industrial Production: <sup>4</sup></b>							
	1957-59=100	—	165	169	173	171	171
<b>Manufacturers' Shipments and Inventories: <sup>4</sup></b>							
Total shipments, monthly rate	Million Dollars	28,745	50,310	51,494	56,904	56,297	—
Total inventories, book value end of month	Million Dollars	51,549	88,579	88,579	94,916	95,365	—
Total new orders, monthly rate	Million Dollars	28,365	50,597	53,101	56,821	56,352	—

<sup>1</sup> Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1959-61—estimated monthly. <sup>2</sup> Annual and quarterly data are on 50-State basis. <sup>3</sup> Annual rates seasonally adjusted third quarter. <sup>4</sup> Seasonally adjusted. <sup>5</sup> As of November 1, 1968. <sup>6</sup> As of March 1, 1970.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).



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### *A Shift in Machines*

Farmers who have been buying automotive farm equipment in recent years have been generally interested in larger machines with more power and greater efficiency.

As a result, there's been a decline in the number of most principal machines now used on farms.

Motor trucks, field forage harvesters, and pickup balers are exceptions. Since 1960 they've increased in number by 12 percent, 13 percent, and 16 percent, respectively.

But it's a different story with grain combines. They have dropped off in number by 18 percent since 1960.

And the number of corn pickers and picker shellers is down 21 percent—largely because 1-and-2-row pickers are being replaced by higher capacity 4-row (or more) picker heads for use with combines.

Tractors show the same down-trend in numbers but upswing in power.

In 1962 less than 1 percent of the larger tractors were in use. But in 1968, figures indicated that about one-third of all farmers were using machines with at least 90 horsepower.

Despite fewer purchases, the value of all motor vehicles and machinery on farms rose to \$32.6 billion on January 1, 1969, from \$31.1 billion a year earlier—and only \$3.1 billion back in 1940.

The investment in machinery per man hour of labor? It was 19 cents per hour in 1940—but rose steadily to \$3.62 an hour during 1968. (15)

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